Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Canceled)

2. (Currently Amended) An apparatus for extracting electrical energy from mechanical motion, comprising:

at least two transducers coupled to a waved surface by couplers in contact with the waved surface for movement following the waved surface, such that an elastic portion of energy in one transducer is transferable to at least one ~~the~~ other of the at least two ~~transducer~~ transducers.

3. (Canceled)

4. (Canceled)

5. (Currently Amended) The apparatus of claim [[4]] 2, ~~wherein~~ comprising a second waved surface in contact with a second side of at least one of the ~~coupler~~ couplers ~~contacts the waved surface on a first side of the coupler, and the member defines a second waved surface, the coupler contacting the second waved surface on a second side of the coupler~~ wherein the second side is opposite ~~the~~ a first side of the at least one of the couplers in contact with the first waved surface.

6. (Currently Amended) The apparatus of claim [[4]] 2, wherein couplers of two transducers are positioned such that they move out-of-phase relative to each other.

7. (Currently Amended) The apparatus of claim [[4]] 2, wherein the ~~waves~~ waved surface is sinusoidal.

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (New) The apparatus of claim 2, wherein at least one of the transducers includes a piezoelectric element.

12. (New) The apparatus of claim 2, wherein at least one of the transducers includes an electrostrictive element.

13. (New) The apparatus of claim 2, wherein at least one of the transducers includes a magnetostrictive element.

14. (New) The apparatus of claim 2, wherein the waved surface has a jagged toothed pattern.

15. (New) The apparatus of claim 2, wherein at least one of the couplers includes a tip that mates with the waved surface.

16. (New) The apparatus of claim 2, wherein at least one of the couplers contacts the waved surface intermittently.

17. (New) The apparatus of claim 2, wherein the waved surface is in contact with a first side of at least one of the couplers having also a second side, and a second surface is in contact with the second side.

18. (New) The apparatus of claim 17, wherein the waved surface and the second surface define a groove.

19. (New) The apparatus of claim 2, including a third transducer coupled by a third coupler to the waved surface for movement following the waved surface, such that an elastic portion of energy in each transducer is transferable to another one of the transducers.

20. (New) The apparatus of claim 5, wherein the waved surfaces define a groove.

21. (New) The apparatus of claim 6, wherein the out-of-phase movement of the couplers causes out-of-phase deformations of the transducers.

22. (New) The apparatus of claim 21, wherein as stress of one of the transducers increases, stress of at least one other transducer decreases.

23. (New) An apparatus for extracting electrical energy from mechanical motion, comprising:

a first transducer having a first coupler;

a second transducer having a second coupler; and

a wave plate defining a first waved surface,

the first and second couplers in contact with the first waved surface, respectively coupling the first and second transducers to the wave plate, and allowing the first and second transducers to follow a movement pattern defined by the first waved surface, such that an elastic portion of energy in each transducer is transferable to the other transducer.

24. (New) The apparatus of claim 23, wherein the first coupler contacts the first waved surface on a first side of the first coupler, and the wave plate defines a second waved surface matching a pattern of the first waved surface, the first coupler contacting the second waved surface on a second side of the first coupler opposite the first side.

25. (New) The apparatus of claim 23, wherein the first and second couplers are positioned along the first waved surface such that they move out-of-phase relative to each other.

26. (New) The apparatus of claim 23, wherein the first waved surface has an essentially sinusoidal pattern.

27. (New) The apparatus of claim 23, wherein at least one of the transducers includes a piezoelectric element.

28. (New) The apparatus of claim 23, wherein at least one of the transducers includes an electrostrictive element.

29. (New) The apparatus of claim 23, wherein at least one of the transducers includes a magnetostrictive element.

30. (New) The apparatus of claim 23, wherein the first waved surface has a jagged toothed pattern.

31. (New) The apparatus of claim 23, wherein at least one of the first and second couplers includes a tip that mates with the first waved surface.

32. (New) The apparatus of claim 23, wherein at least one of the couplers contacts the first waved surface intermittently.

33. (New) The apparatus of claim 23, wherein the first waved surface is in contact with a first side of at least one of the couplers having also a second side, and a second surface is in contact with the second side.

34. (New) The apparatus of claim 33, wherein the first and second waved surfaces define a groove.

35. (New) The apparatus of claim 23, wherein at least one of the first and second couplers includes a bearing.

36. (New) The apparatus of claim 23, wherein the wave plate includes a cam.

37. (New) The apparatus of claim 23, including a third transducer coupled by a third coupler to the wave plate, the third coupler in contact with the first waved surface and allowing the third transducer to follow a movement pattern defined by the first waved surface, such that an elastic portion of energy in each transducer is transferable to another one of the transducers.

38. (New) The apparatus of claim 24, wherein the first and second waved surfaces define a groove.

39. (New) The apparatus of claim 25, wherein the out-of-phase movement of the first and second couplers causes respective out-of-phase deformations of the first and second transducers.

40. (New) The apparatus of claim 39, wherein as stress of one of the first and second transducers increases, stress of the other transducer decreases.

41. (New) An apparatus for extracting electrical energy from mechanical motion, comprising:

a first plate;

a second plate;

an intermediate plate including a segmented transducer disk sandwiched between, and rotatable relative to, the first plate and the second plate;

first rolling elements disposed between the first plate and the intermediate plate; and

second rolling elements disposed between the second plate and the intermediate plate, the first and second rolling elements acting on the intermediate plate to produce a mechanical deformation of the intermediate plate corresponding to a wave traveling along a surface of the segmented transducer disk, the deformation causing the segmented transducer disk to generate electrical energy.

42. (New) The apparatus of claim 41, wherein at least one of the first or second rolling elements includes a ball bearing.

43. (New) The apparatus of claim 41, wherein at least one of the first or second rolling elements includes a roller.

44. (New) The apparatus of claim 41, wherein at least one of the first or second rolling elements is fixed relative to at least one of the first plate and the second plate.

45. (New) The apparatus of claim 41, wherein a segment of the segmented transducer disk experiences a cyclic load from pressure exerted on the segmented transducer disk by the first and second rolling elements.

46. (New) The apparatus of claim 45, wherein the segment produces a voltage caused by the cyclic load.

47. (New) The apparatus of claim 41, wherein the mechanical deformation of the segmented transducer disk results in an elastic portion of mechanical energy in one segment of the segmented transducer disk being transferred to another segment of the segmented transducer disk.

48. (New) The apparatus of claim 41, wherein the wave travels along a circumference of the intermediate plate.

49. (New) The apparatus of claim 41, wherein the generated electrical energy is harvested from a voltage produced by the mechanically deformed segmented transducer disk.

50. (New) The apparatus of claim 41, wherein the transducer disk includes a piezoelectric element.

51. (New) The apparatus of claim 41, wherein the transducer disk includes an electrostrictive element.

52. (New) The apparatus of claim 41, wherein the transducer disk includes a magnetostrictive element.